



I.E.I NEWS

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A CENTURY OF SERVICE TO THE NATION

Volume 29

Number 1

IEI Technical Webinar under the aegis of Agricultural Engineering Division Board

Micro-irrigation - A Potential Input for Enhancing Farmers' Income

The Institution of Engineers (India), Uttar Pradesh State Centre organized Technical Webinar on the theme **Micro-irrigation - A Potential Input for Enhancing Farmers' Income** under the aegis of the Agricultural Engineering Division Board of the Institution on 15 March 2022.

Dr T B S Rajput, ARS (Retd.), Adjunct Professor, Agricultural Engineering, Indian Agricultural Research Institute, New Delhi and Dr Rajendra Gupta, Principal Scientist (Soil & Water Conservation Engineering), Agricultural Engineering Division, ICAR - Indian Institute of Sugarcane Research, Lucknow graced the event as panelists and addressed the audience. Dr Jaswant Singh, ARS (Retd.), Former Head, Agricultural Engineering Division & Project Coordinator (Process Engineering), ICAR - Indian Institute of Sugarcane Research, Lucknow and Honorary Secretary of the host Centre was the moderator of the event.



Dr T B S Rajput

At the outset, Mr Masarrat Noor Khan, Chairman, Uttar Pradesh State Centre, IEI delivered the welcome address. Dr G Ranganath, Chairman, Committee for Advancement of Technology and Engineering (CATE), IEI graced the event and briefed about the heritage and the current activities of the Institution. Chairman,

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IEI Technical Webinar under the aegis of Electronics & Telecommunication Engineering Division Board

Blockchain and Cryptocurrency

West Bengal State Centre of The Institution of Engineers (India) organized IEI Technical Webinar on the theme **'Blockchain & Cryptocurrency'** under the aegis of the Electronics & Telecommunication Engineering Division Board of the Institution on 24 February 2022. Nearly 200 people attended the Webinar in a quest for contemporary information regarding blockchain and cryptocurrency. Ms Mina Desai, Joint Director & Centre Head, C-DAC Kolkata and Mr Niladri Sekhar Saha, Joint Director, C-DAC Kolkata graced the event as the panellists and Er Chanchal Chakraborty, Joint Convenor, Electronics & Telecommunication Engineering Divisional Sub-committee, West Bengal State Centre was the moderator for the session.



Ms Mina Desai

The webinar started with the welcome speech by Er Sandip Kumar Deb, Vice President, IEI and the then Chairman, West Bengal State Centre. Prof (Dr) Girish Shrikisan Mundada, Chairman Electronics and Telecommunication Engineering Board of IEI set the tune of the webinar while delivering the opening remarks and narrated the importance and relevance of the topic in the current financial scenario. Dr G Ranganath, Chairman, Committee for Advancement of Technology and Engineering, IEI explained the

significance and necessity of Blockchain and Cryptocurrency in India.

Ms Mina Desai started her speech with a brief review on the objective of unified blockchain framework. She touched upon origin, necessity and solution matrix of blockchain and

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From the President's Desk.....



Groundwater accounts for almost 50% of the entire potable water consumption, about 40% of water for irrigation agriculture and about 33% of water required for industry. It sustains ecosystems, maintains the base flow of rivers and prevents land subsidence and seawater intrusion. Groundwater is an important part of climate change adaptation process and is often a solution for people without access to clean water. Despite these impressive facts and figures, invisible groundwater is out of sight and out of mind for most people. Human activities and climate variability are increasing the pressure on groundwater resources; serious pollution and depletion problems are reported for many parts of the world. To add to the complexity, our knowledge is not comprehensive about the state of groundwater resources (aquifers) globally and have been found wanting so far as managing our ground water resources. This has necessitated improving our understanding, knowledge and visibility of our groundwater resources.

Groundwater is not a flowing river, but water that exists in cracks, pores and fractures. Better visualisations can help to demystify and bust some common myths. There is a need to comprehend that groundwater resources exist on earth in a ubiquitous manner and suitable infrastructure will be required to extract it. Simultaneously, groundwater extracted from different sources can be unfit for drinking due to presence of naturally occurring arsenic, which is impossible to see or photograph. Hence, it needs to be purified to render them suitable for human consumption. Groundwater resource and the aquifer (the host)-both need to be protected. The hydrological cycle is not the only determining factor that affects how quickly water is recharged after extraction. In fact, contaminated groundwater can take a long time to remediate. Understanding such complex processes can help us to value this invisible resource.

Lack of understanding and data on the sectoral uses of groundwater is missing in most countries. Unknown individual usage and access means that not all water resources are accounted during planning and management. The same is true for aquifers which are shared across borders, exacerbating the risk of power asymmetries.

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Micro-irrigation - A Potential Input for Enhancing Farmers' Income

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CATE also touched upon application and advantages of micro-irrigation and its effect on farmer's welfare.

Prof (Dr) Nemichandrappa M, Chairman, Agricultural Engineering Division Board (AGDB), IEI, while giving a brief overview on the theme of the webinar, said that micro-irrigation can increase yields and decrease water, fertiliser and labour requirements. He clarified that the practice of applying water directly to the root zone, reduces loss of water through conveyance, run-off, deep percolation and evaporation, which will have positive impact on utilisation of fertilisers and crop yield as a result. Sensing the significance and probable benefits of the process to double the farmers' income along with agricultural sustainability and environmental quality, Government of India, promoted micro-irrigation system in agriculture and implemented various schemes for farmers' benefit, added Chairman, AGDB.

To start with the technical session, Dr Jaswant Singh, Moderator of the programme, introduced the panelists of the event. Dr T B S Rajput, gave a brief history of the green revolution and its effect on Indian agriculture in early seventies of the last century which made India a self-sufficient nation in food grains who can even export food crops to other countries. Dr Rajput told it was realized gradually that maximizing food grain production has over stressed natural resources of soil and water whereas sustainable use of natural resources will help for future development, which became favourite topic for researchers, policy makers and other stake holders. He said horticultural production was encouraged to meet nutritional requirements of the large vegetarian population in the country. Dr Rajput touched upon the initiatives of Govt. of India like National Horticulture Mission, Horticulture Board and Mission for Integrated Development of Horticulture etc. supported by appropriate need based dynamic policies for promoting horticulture in general and micro-irrigation in particular which resulted in quantum jump in horticulture production, surpassing food grain production in the country in recent past. He spoke on the multi-pronged strategy followed by Govt. of India for promotion of micro-irrigation in the country which includes policy guidelines, offsetting its high initial cost partly by Government funding, developing research base, encouraging industry for production of quality micro-irrigation equipment locally and promoting water saving strategies. His talk included a detailed first-hand account of the progress of micro-irrigation in the country from its inception to the point, India became the country with the largest micro-irrigated agricultural area in the world.

Dr Rajendra Gupta briefed on water scarcity and decreasing availability of ground water in India with current statistics and said micro-irrigation can save considerable amount of irrigation water for production of major crops in India like paddy, wheat, maize, soybeans and sugarcane. During his presentation, Dr Gupta pointed out that drip and sprinkler methods of irrigation are being used for a very small percentage of total irrigated area and irrigation efficiency of surface methods is 30-40%. He felt that there is a need to improve irrigation efficiency of these surface methods and adoption

of advanced micro-irrigation methods to increase agricultural productivity per unit of water. Dr Gupta illustrated the measures for making surface irrigation methods more efficient by following proper designing procedures, adopting laser land levelling and conveying water through pipes and conduits. He further explained that irrigation method must be designed to maximize irrigation efficiency without significantly sacrificing the crop yield with limited water availability. Dr Gupta mentioned use of micro-irrigation saves fertilizers, reduces weed growth, maintains soil fertility and increases crop yield besides saving irrigation water and labour.

Thus, micro-irrigation can be used to save input cost, reduce environmental pollution and enhance crop yield with lesser inputs, thus increasing farmers income, he concluded.

Dr Jaswant Singh summed up the deliberation at the end of the session mentioning that micro-irrigation methods like drip and sprinklers need to be employed for efficient distribution and application of water for crop production as they reduce conveyance and distribution losses and allow higher water use efficiency. He said Governments, at central and state level, have been trying to promote micro-irrigation to help farmers to save water and boost yields, however, due to lack of awareness, it is yet to be popular among the farming community. A large

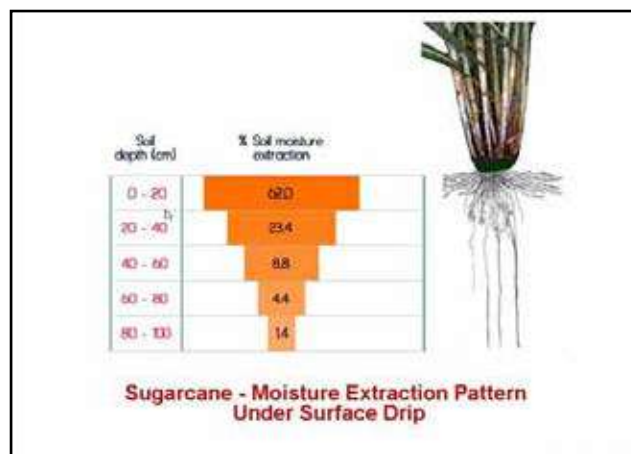
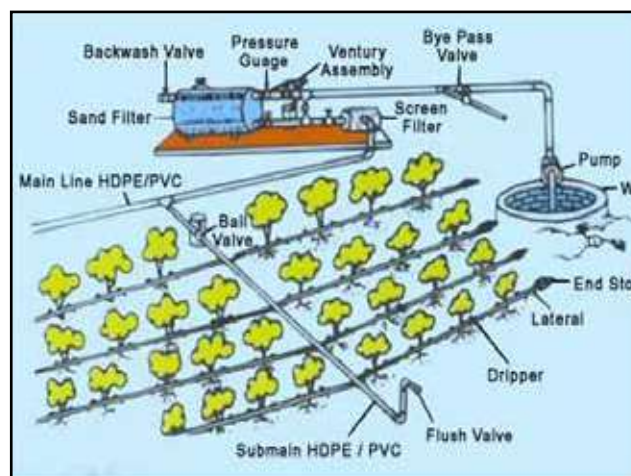
number of people have attended the webinar in the quest of knowledge. The event concluded with the vote of thanks proposed by the Honorary Secretary of Uttar Pradesh State Centre.



Dr Rajendra Gupta



Dr Jaswant Singh



Natural Fibres for Sustainable Textiles

West Bengal State Centre, IEI organized Technical Webinar on the theme **Natural Fibres for Sustainable Textiles** on 23 February 2022 under the aegis of Textile Engineering Division Board [TXDB]. Prof Rabisankar Chattopadhyay, Professor, Department of Textile Engineering, IIT Delhi and Dr Manas Kumar Sarkar, Teaching Fellow, Institute of Textiles and Clothing, The Hong Kong Polytechnic University graced the event as panelists and shared their thoughts and expertise with the participants. Prof Sadhan Chandra Ray, Former Professor & Head, Department of Jute and Fibre Technology, University of Calcutta and Chairman, Textile Engineering Division Board, IEI was the moderator of the webinar session. At the beginning, Mr Sandip Kumar Deb, Vice President, IEI and the then Chairman, West Bengal State Centre, IEI extended warm welcome to all the panelists, guests and attendees. Prof Sadhan Chandra Ray in his address categorically mentioned that the Textile Engineering Division of the Institution is a small Division in terms of number of Members but must be raised as a large Division in terms of technical activities and academic contribution for the interest of IEI, and the process has been started in the recent past. As the moderator of the webinar, Prof Ray explained the theme and introduced the panelists of the session. Being introduced, the eminent panelists started their valuable and informative presentations related to their research achievements keeping in view the theme of the webinar.



Prof Rabisankar Chattopadhyay

Prof Rabisankar Chattopadhyay, under the heading 'Natural Fibres and Sustainability', lucidly discussed the characterization of all natural fibres in terms of structure, physical and mechanical properties in order to identify their strength and weakness. As stated by Prof Chattopadhyay, weakness has also some benefits, which can be converted into strength. He further focused on the global position of natural fibres. The comparison between natural and synthetic fibres was discussed by him for identifying the optimum blends of natural and synthetic fibres for producing sustainable textiles. For further growth of natural fibre based sustainable textiles, it is essential to establish efficient supply chain from raw material to producer to customer, he added.



Dr Manas Kumar Sarkar

The presentation of Dr Manas Kumar Sarkar, on the theme 'Bio-mimetic Approach for Developing Sustainable Functional Textiles and Clothing' was

very much interesting and innovative. Bio-mimetic is the process of applying biological principles that underline morphology, structures and functionality of biological entities to man-made design/structure/product, Dr Sarkar explained. He first introduced the understanding of the functionality of human skin, branching structure of trees, stomata in plant leaves etc keeping in view human comfort. He then discussed in details with suitable diagrams, the development of different types of functional textiles using natural fibre following bio-mimetic in order to keep the skin dry without applying any chemical finishing. Such fabrics were produced by both weaving and knitting. He also explained the technique of producing super hydrophilic fabrics (Moisture Responsive Smart Textile) with lotus leaf effect.



Prof Sadhan Chandra Ray

After the presentations given by the two esteemed panelists, Prof Sadhan Chandra Ray, moderator of the event summed up the deliberation. Prof Ray, mentioned that both the presentations given by the panelists in the respective fields of their expertise were based on research, having huge in-depth knowledge and provided basic information for the participants. Prof Rabisankar Chattopadhyay dealt in details with the structural aspects and property parameters of all natural fibres. With the help of comparative tabular presentations of those parameters, he justified the ways for proper selection of fibres for the manufacture of sustainable textiles of various applications. In fact, he delivered the complete SWOT (strength, weakness, opportunity and threat) analysis of natural fibres for producing sustainable textiles. Dr Manas Kumar Sarkar discussed in details with suitable diagrams the developments of different types of functional textiles using natural fibre following bio-mimetic in order to add comfort properties, particularly to keep the skin dry without applying any chemical finishing on such fabrics, which may be produced by both weaving and knitting. He also explained the technique of producing differential super hydrophilic fabrics (Moisture Responsive Smart Textile) with lotus leaf effect. Prof Ray also extended the thanks to the panelists on behalf of West Bengal State Centre of IEI for their valuable contributions for the academic interest of The Institution of Engineers (India). Thereafter, an interactive session was held for fulfilling the curiosity of the participants. Prof N K Brahma, Honorary Secretary, West Bengal State Centre appreciated the content of the presentations of the panelists and proposed the vote of thanks.

Blockchain and Cryptocurrency

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elaborated the properties of blockchain like data integrity, protection, security, non-hackability and immutability. Ms Desai then discussed the concept of blockchain along with cryptographic security and distributed ledger technology. She explained various types of blockchain and differences with relational database. Ms Desai then narrated the application of blockchain in cryptocurrencies, banking/insurance, real estate, healthcare, supply chain management, IT cloud storage, FinTech, crowd funding and sharing economy, legal, and internet of things etc. She explained the concept of cryptocurrency, its working mechanisms with relevant examples along with details of different platforms deployed for cryptocurrency like Hyperledger, Ethereum, Ripple, Redbelly, Stellar, Quorum, & OpenChain etc.

Mr Niladri Sekhar Saha, Joint Director, C-DAC Kolkata started with blockchain ecosystem followed by Hash algorithm. He then described the blockchain workflow and the way transaction propagates in a distributed network. Mr Saha then explained the importance of validation of transactions, mining,

role of miners and consensus process followed by the structure of block, Markle Tree and proof of work. He discussed about the safety aspects if there are attempts to cheat or hack the system. Mr Saha also spoke on the concept of smart contract, operating procedure with example and its advantages. He further analysed the landscape of blockchain with relevant pros & cons. He opined that blockchain is going to be the game-changer in the days to come and mentioned about the endless possibilities of blockchain technology, while concluding his speech.



Mr Niladri Sekhar Saha

Pertinent questions were raised by the participants that lead to fruitful deliberations and a lively question-answer session was held. The vote of thanks was proposed by Prof Nitosh Kumar Brahma, Honorary Secretary, West Bengal State Centre at the end of the session.

Development of Minor Ports for Internal Transport Managing Regional Waterways and Canal System

Telangana State Centre of the Institution organized All India Seminar on the theme **Development of Minor Ports for Internal Transport Managing Regional Waterways and Canal System** during 19-20 February 2022 under the aegis of Marine Engineering Division Board [MRDB] in virtual mode. During the Inaugural Function, Dr H O Thakare, President, IEI graced the occasion as Chief Guest. Dr Thakare, in his address strongly advocated for waterway transport as an advantageous mode of transport, which is relatively economical for bulk and heavy goods, safe with respect to less occurrence of accidents and the cost of maintenance of the routes is low as most of them are naturally made. He stated that when the major ports' preoccupation with international trade influences increase in coastal vessel operations, the coastal trade are increasingly lean on minor ports for servicing their incremental needs and thus minor ports play an important role in increasing the trade and economy of the developing countries. Mr G Radhakrishna, Managing Director, RKEC Projects Limited, Visakhapatnam graced the function as the Guest of Honour. In his address, Mr Radhakrishna explained different aspects of marine construction projects in RKEC Projects Limited in terms of quality assurance, delivery lead time and cost effectiveness. Special Guest on the occasion, Cdr Dr Bhaskar M Bhandarkar, Chairman, Marine Engineering Division Board, IEI, in his address, stated that about 90% of world trade is obtained by means of water transport and added that India has extensive network of Inland water ways in the form of rivers, canals, backwaters and seas. Earlier, Mr B Brahma Reddy, Chairman, Telangana State Centre delivered the welcome address. Dr G Venkata Subbaiah, Honorary Secretary, Telangana State Centre proposed the vote of thanks.

During four Technical Sessions, twelve papers were presented. Shri R Jayachandran, CFO, RKEC Projects Limited delivered his lecture on the topic 'Development of Ports'; Dr (Capt) Ravi K Sishta, Master Mariner delivered presentation on 'The Impact of Seaports & Related Infrastructure On Maritime Logistics - A Geo Economic Perspective'; Mr S Suryanarayana, Convener, Organizing Committee & Committee Member, Telangana State Centre, IEI presented Paper on 'Coastal Corridors or Water Highways'; Mr U R P Sudhakar, Research Scholar, School of Maritime Management, Indian Maritime University delivered lecture on 'Impact of GST and E-Waybill on Road Transportation of Containers and Port- Hinterland Connectivity: An

Exploratory Study of Stakeholder Perceptions'; Capt R G Bamboat presented Paper on the topic 'State Waterways (Inland) for Telangana (SWIFT), A Broad Analysis of the Potential for Inland Navigation and Transport of Goods and People, throughout the State of Telangana in the Union of India'; Prof Jagtar Singh, PhD, Former Head, Department of Library and Information Science, and Former Dean, Faculty of Education and Information Science, Punjabi University deliberated on the topic 'Media and Information Literacy for Human Resource Development'. Mr Aditya Tidke, IIT, Roorkee & Mr Vedanti Tidke, YCCE, Nagpur presented Paper on the topic 'Development of Inland Water Transportation In India'; Mr Dauson Nyonyi, Department of Transportation Engineering and Technology, NIT, Tanzania; Dr V V Prasad and Prof G V V Pavan Kumar, Department of Marine Engineering, Andhra University, Visakhapatnam present Paper on 'Concept Design Cycle 10,000 Dwt Multi-Purpose Cargo Vessel Using Ship Design Tools'. Prof G V V Pavan Kumar & Prof V V Prasad, and Mr Dauson Nyonyi also deliberated on 'Radiated Underwater Noise from Fishing Vessels on ambient Levels'; Capt Nilesh Kalyanpur presented his paper on the topic 'COVID-19 Pandemic & Seafarer [Workers] Endurance for More Work'.

On the occasion, Mrs Irene Andriopoulou, Co-Secretary General of the ISC of UNESCO MIL Alliance, Head of Research, Studies & Education, EKOME, Greece presented Paper on the topic 'Global Perspectives of Media and Information Literacy on Public Media Ecosystem' and Robert Tomljenović, Vice President of the Croatian Electronic Media Council, an independent regulatory body for the electronic media in the Republic of Croatia deliberated on 'Disinformation and Media Literacy'. A Panel Discussion was also organized on the occasion.

During the valedictory function, Shri V Prakash Rao, Chairman, Telangana Water Resource Development Corporation & Chairman, Indian Peninsular River Basins Council graced the occasion as Chief Guest. Cdr Dr Bhaskar M Bhandarkar, Chairman, MRDB, IEI graced the occasion as Guest-of-Honour. Mr B Brahma Reddy, Chairman, Telangana State Centre presided over the function. Dr G Venkata Subbaiah, Honorary Secretary, Telangana State Centre, IEI proposed the vote of thanks. Past Presidents of the Institution, Past Chairmen and Past Honorary Secretaries of the host Centre, Council Members, Committee Members, Corporate Members of IEI and other stake holders participated in the event.

One Day Workshop under the aegis of Interdisciplinary Coordination Committee

The Glass Ceiling Faced by Working Women Engineer

Jharkhand State Centre, IEI organized One Day Workshop on the theme **The Glass Ceiling faced by Working Women Engineer** on 8 March 2022 under the aegis of Interdisciplinary Coordination Committee, IEI. Er Asha Wazir Biswas, Chief General Manager, (CMS & MR) MECON Limited, Ranchi graced the function as Chief Guest. In her address, she congratulated



Jharkhand State Centre, IEI for organizing the event and emphasized on the requirement of breaking the glass ceiling by women engineers through hard work and dedication. She pointed out that women are the best managers at workplace and they have to overcome all hurdles to reach higher positions. She also discussed various measures to be taken to improve the strength of women. Er Shilpi Ranjan, Assistant General Manager, MECON Limited, Ranchi delivering Keynote address on the occasion. In her lecture, she emphasized different laws and regulations passed by the Central and State Governments to address the barriers for women working personnel and stressed required action on several fronts based on Governmental policy and legislation to dismantle discriminatory practices and artificial barriers. She further stressed the need to introduce more programs and projects to understand the best interventions for breaking down barriers. Er Shweta Soni Sharma, Chief Manager (E&M), Central Coalfields Limited, Ranchi in her address explained glass ceiling as an invisible discriminating barrier that prevents women from rising to the position at top. She felt that women

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Felicitation of President, IEI by Madhya Pradesh State Centre, Bhopal



**Madhya Pradesh State Centre of the Institution Felicitated
Dr Hemant O Thakare, FIE, President, IEI on April 17, 2022 at Bhopal**

From the President's Desk.....

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Climate change is a silent threat to groundwater quality and quantity, and very little is known about its future impacts. Extreme rainfall caused by climate change cannot infiltrate the ground and rejuvenate aquifers. High temperatures increase evaporation and decreases recharge. Harvesting rainwater and investing in structures that enhance aquifer recharge can help to make groundwater use sustainable and improve food security, human health and aquatic biodiversity. This is not only important for regions that have seasonal rain periods, but a way of looking at the underground reservoirs as “banks” that can be used as buffers for dry days.

Groundwater is not just for human use but is integral to maintaining stream flow and supporting ecosystems such as wetlands. Over-pumping is already driving biodiversity loss and degrading of groundwater-dependent ecosystems. Making such connections will go a long way in making groundwater visible, and understanding the need to protect aquifers.

Multiple disciplines need to come together to shine the light on groundwater. We need all perspectives and different disciplines – the social scientists, the lawyers, the modellers, and the engineers to pull all the knowledge, and for communicators to make groundwater visible.

World Water Day is observed every year on 22 March as a part of United Nations annual observance since 1993 to inspire action towards sustainable use of water and to elevate awareness of millions of peoples' suffering due to water scarcity. Identification, exploration, and sustainable use of groundwater are the key to survival and meeting the needs of a growing population of the planet which requires proper policies, planning and implementation. This year the theme of the World Water Day 2022 was 'Groundwater - Making the Invisible Visible'. The Centres of IEI observed World Water Day on 22 March 2022 on the above mentioned theme, which is principally focused on the importance of ground water in adapting climate change and maintaining ecological balance, protecting it from pollution and recharging the underground aquifers. A large number of engineering professionals and representatives from different sections of the society attended the programmes organised at our different Centres.

The Glass Ceiling Faced by Working Women Engineer

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have to put in much extra efforts to prove themselves continuously as they proceed the ladder of management. Er Rupali Mani, General Manager (Environment), MECON Limited, Ranchi in her address stated that the root of glass ceiling is gender-based barriers, which is most often associated with women at work. She mentioned that glass ceiling is present all over the world at all workplaces, however, the degree of intensity of barriers are different. Er Shweta Kumari, Water Resource Department, Government of Jharkhand, in her address stated the role of women in irrigation management in rural areas. She spoke about the social and cultural barriers for women, working in canal irrigation system. She strongly recommended that in participatory irrigation management, mandatory provisions should be incorporated regarding participation of women in association with Water Users Association (WUA) and other committees. Er Shivanand Roy, Former Engineer in Chief, Water Resources Department, Government of Jharkhand and Council Member, IEI in his encouraging speech expressed satisfaction over the active participation of women Engineers in the programme. Mr

Siyaranjan Kumar Singh, Former Chairman, Jharkhand State Centre boosted the morale of women engineers by his enthusiastic speech.

Earlier, Er Iqbal Alam, Chairman, Jharkhand State Centre & Council Member, IEI delivered the welcome address. Er Manoj Kumar, Honorary Secretary, Jharkhand State Centre proposed the vote of thanks at the end of the session.

A panel discussion was organized on the occasion and the following recommendations emanated from the same.

Breaking the glass ceiling requires action on several fronts including Governmental policy and legislation for dismantling discriminatory practices and artificial barriers; Women have to upgrade their skill sets and channelize positive energy; From the organizational end, the recruitment and promotion practices of women engineers should be reviewed. Focus should be obtained on promoting diversity of ideas, innovation and perspectives, encourage open conversations, support women's network, mentoring the women engineers and understanding their views.



IEI Celebrates World Engineering Day for Sustainable Development 2022

Theme
Build Back Wiser
Engineering the Future

World Engineering Day for Sustainable Development was celebrated by the Centres of the Institution all over the country on March 04, 2022. Brief accounts of the celebration as received from various Centres are reported hereunder.

STATE CENTRES

Gujarat

Gujarat State Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 at its premises on the theme 'Build Back Wiser Engineering for Future'. Keynote Speaker of the event Prof Dr Ing Anupam Kumar Singh, Principal, Adani Institute of Infrastructure Engineering, Ahmedabad delivered a lecture on the theme of the day and said sustainable engineering solutions and a plan of action aligned with the Sustainable



Development Goals are required to address the present challenges of the planet. In order to build back wiser, adapt and develop, he emphasized on demonstration of values and responsibilities in every action which is essential for economic and financial investments, tangible environmental and social impact and climate risk management. At the outset, Mr Vijay Solanki, Deputy Director, Water Management Forum, IEI briefly discussed the objective and background of the day. Mr P M Chaudhary, Chairman, Gujarat State Centre, IEI delivered welcome address. He stressed on the important works engineers have to do to address climate change and develop technology for a carbon free economy. Mr Chaudhury mentioned engineers' contribution in ensuring the cities to be clean, more sustainable, smarter and liveable, citizens getting potable water, sanitation systems, affordable healthcare and reliable energy. Mr Navinchandra B Vasoya, Past President, IEI and Executive Council Member of World Federation of Engineering Organizations forwarded a message for success of the event. Mr Sandeep B Vasava, Council Member, IEI & Secretary, Roads & Building Department, Government of Gujarat addressed the gathering. Mr D O Nakrani, Honorary Secretary, Gujarat State Centre, IEI proposed the vote of thanks at the end.

Jammu & Kashmir

Jammu & Kashmir State Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 in virtual mode. Er Iftikhar Ahmad Kakroo, Chief Engineer, Srinagar Smart City; Mr Bashir Ahmad Dar, Secretary Technical, Jammu and Kashmir Power Development Department; Mr Basharat J Kawosa, Chief Engineer, Jal Shakti Department, Government of Jammu & Kashmir; Mr Rashid Ahmad Dar, Chief Engineer, Mechanical Engineering Department, Government of Jammu & Kashmir; Mr Rafiq Ahmad Rafiq, Chief Engineer, PW (R&B) Department, Government of Jammu & Kashmir and Mr Tanveer Mir, Chief Engineer, Pradhan Mantri Gram Sadak Yojana, Government of Jammu & Kashmir graced the occasion as panellists and shared their thoughts on the theme 'Build Back Wiser Engineering the Future'. Dr Raof Ahmad Khan, Chairman, Jammu & Kashmir State Centre, IEI highlighted the role of engineers with reference to the theme. Mr Ferdous Ahad Bhat, Honorary Secretary, Jammu & Kashmir State Centre, IEI proposed the vote of thanks.

Telangana

Telangana State Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 on the theme 'Build Back Wiser Engineering the Future' in virtual mode. Dr Iyyanki V Murali Krishna, Dr Raja Ramanna Distinguished Fellow at the Defense Research and Development Organization (DRDO), India graced the event as the Chief Guest and delivered an excellent technical talk on 'Engineering Innovation and Startups'.



At the beginning Mr B Brahma Reddy, Chairman, Telangana State Centre, IEI welcomed the gathering. Dr I Satyanarayana Raju, Council Members, IEI, Prof Dr Ramana Naik, Chairman, Madurai Local Centre, IEI, Dr Siva Subramanian, former Chairman, Telangana State Centre, IEI and Dr S P Anchuri, Convenor of the event along with other committee members of the State Centre were present on this occasion. Dr G Venkata Subbaiah, Honorary Secretary, Telangana State Centre, IEI proposed the vote of thanks.

LOCAL CENTRES

Agra

Agra Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 at the premises of Institute of Engineering and Technology (IET), Khandari. Speaker of the event, Dr Rajeev Upadhyay,



Director, Hindustan College of Science and Technology, Mathura delivered lecture on 'Build Back Wiser Engineering the Future'. He explained three essential factors of sustainable development as devoted

person for development, technology and suitable atmosphere. At the onset, Dr Ashok Yadav, Chairman, Agra Local Centre, IEI welcomed the guests, introduced the theme and felicitated the speaker Dr Rajeev Upadhyay. Mr Devendra Singh Chaudhary, Honorary Secretary, Agra Local Centre, IEI talked about Engineers Bill and its importance. Committee Members of IEI Agra Local Centre participated in the discussion and shared their views. Chairman, Agra Local Centre proposed the vote of thanks at the end.

Ahmednagar

Ahmednagar Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 in virtual mode. Dr Pratap Raval, Professor (Civil-Town Planning), Savitribai Phule Pune Vidyapeeth delivered lecture on the topic 'Build Back Wiser Engineering the Future'. He mentioned that environment, economics and society are the pillars of sustainable development and holistic approach is necessary for maintaining the

balance between them. Dr Raval concluded that the present concerns of the world like global warming and increasing carbon footprint are the results of lack of environmental awareness and ecological balance. Mr M M Anekar, Chairman and Mr Abhay K Raje, Honorary Secretary, Ahmednagar Local Centre, IEI were present during the event and addressed the gathering.



Bareilly

Bareilly Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 on the theme 'Build Back Wiser - Engineering the Future'. Dr Ghanshyam Khandelwal, Chairman & Managing Director, B L Agro Industries Ltd, Bareilly graced the event as the Chief Guest. Mr Neeraj Rajesh, Joint General Manager, Urea,IFFCO, Aonla, Bareilly was the keynote speaker. Mr Anand Prakash, CEO, Farm for Full Potential LLP and Former



Global Head, WIPRO Ltd elaborated on the theme. He explained the importance of engineering design and technical systems to reduce the effect of climate change.

Mr Prakash said engineers have the ability to instigate change, motivate and encourage the communities to aim for a better future. Mr Kaushlendra Singh Sisodiya, CEO, Uniconverge Technology and the IoT Academy shared his views on the responsibilities of engineers for implementing the energy transition and to shape a net-zero carbon world. Mr Kamlesh Verma, Vice President (Human Resource), Alps Industries, Noida, spoke on a new technique 'Lean Construction Principles' and its application to increase productivity and profit with experimental method and data analysis etc. At the onset, Mr Sudhir Gupta, Chairman, Bareilly Local Centre welcomed the gathering and introduced the theme. Mr M K Agrawal, Honorary Secretary, Bareilly Local Centre, IEI proposed the vote of thanks.

Bhimavaram

Bhimavaram Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 on the topic 'Build Back Wiser Engineering the Future' in virtual mode. Dr V K Viswanadha Raju, Chairman and Dr K Suresh Babu, Honorary Secretary, Bhimavaram Local Centre, IEI spoke on importance of the Day. Chief Guest of the event, Dr Venkata Rama Rao Mallela, Professor, Department of Civil Engineering, Vasavi College of Engineering, Hyderabad touched upon new technologies developed for technical education and latest trends in engineering sector. Prof (Dr) K Brahma Raju, Council Member, IEI was also present during the event.

Bokaro Steel City

Bokaro Steel City Local Centre, IEI celebrated World Engineering Day for Sustainable Development on 04 March 2022 at its premises. Chief Guest, Mr A K Jha, Chief General Manager (Traffic Department), SAIL, Bokaro Steel Plant inaugurated the function. In his inaugural address, he mentioned the importance of engineering education and right engineering skills for sustainable development. He talked about the scope of work for engineers to contribute in Steel Industry for improving quality, cost, time, productivity and environmental impact. Mr Y N Singh, Past Chairman, Bokaro Local Centre, IEI was the Guest of Honour. He stressed on the need of the innovation in engineering necessary to adapt and address current global challenges to achieve sustainable development goals. He encouraged engineering education among women.

Earlier, Mr N P Srivastava, Chairman, Bokaro Steel City Local Centre, IEI welcomed the dignitaries and members. He explained



six principles for sustainability and importance of green engineering. Three technical papers were presented on the theme 'Build Back Wiser Engineering the Future' by Mr C P Sahay, Former Deputy General Manager (Traffic), SAIL-Bokaro Steel Plant; Mr Akhilesh Bumb, Senior Manager, Bokaro Power Supply Company (P) Limited and Mr R K Ravi, Senior Manager (Electronics and Telecommunication), SAIL- Bokaro Steel Plant. Mr Sunil Kumar, Honorary, Bokato Steel City Local Centre, IEI proposed the vote of thanks.

Dhanbad

Dhanbad Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022. Prof Gurdip Singh, Environmental Science & Engineering Department, Indian Institute of Technology - Indian School of Mines,



Dhanbad graced the event as the Chief Guest. Prof Somnath Chattopadhyay, Department of Mechanical Engineering, Indian Institute of Technology - Indian School of Mines, Dhanbad delivered keynote lecture on the topic 'Building Back Wiser Engineering the Future'. Prof Biswajit Paul, Joint Honorary Secretary, Dhanbad Local Centre, IEI proposed the vote of thanks.

Durgapur

Durgapur Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 at its premises. Mr M Sameer Jain, General Manager, SAIL Durgapur Steel Plant was the Guest of Honour and Keynote Speaker of the event, who delivered lecture on 'Solid Waster Utilization in Steel Industry'.



He emphasized on recycling process which conserves resources by reducing the depletion of non-renewable resources such as fossil fuels and mineral ores used to manufacture products from virgin materials. Mr Jain

concluded his speech with the aspiration to work towards zero waste. At the outset, Mr Safikul Islam, Chairman, Durgapur Local Centre, IEI welcomed all the dignitaries and highlighted the achievements of the engineers and Mr M Majumder, Honorary Secretary, Durgapur Local Centre, IEI briefed the theme 'Build Back Wiser Engineering the Future'. The event concluded with the vote of thanks proposed Honorary Secretary of the host Centre.

Ghaziabad

Ghaziabad Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 on the topic 'Build Back Wiser Engineering the Future'. Dr Arindam Basu, Director General, Northern India Textile Research



Association, Ghaziabad; Prof (Dr) S M Ishtiaque, IIT Delhi; Dr Laxman Prasad, Advisor, RKG Group of Institutions graced the occasion as Guests of Honour and addressed the august gathering. Mr R P Sharma, Chairman, Ghaziabad Local Centre, IEI welcomed the delegates and Mr Ashok Kumar Agarwal, Honorary Secretary, Ghaziabad Local Centre, IEI proposed the vote of thanks.

Gorakhpur

Gorakhpur Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 in virtual mode. Mr Dharendra Chaturvedi, Chairman, Gorakhpur Local Centre welcomed the honourable speaker and the

audience. Speaker of the event, Dr Deepti Pandey Rana, Associate Professor, Amity School of Architecture and Planning, Amity University, Lucknow Campus delivered lecture on the topic 'An Analytic view for Home Ownership Satisfaction for Future Housing Sector' and shared her thoughts on the environmental management, housing and quality home ownership. Her views on subjective and objective attributes for housing satisfaction were very resourceful for focusing on prevailing condition of each parameter of physical infrastructural facilities in housing areas. Mr Ved Prakash Gupta, Honorary Secretary, Gorakhpur Local Centre, IEI proposed the vote of thanks at the end.



Kanyakumari

Kanyakumari Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 on the theme 'Build Back Wiser Engineering the Future' in virtual mode. Dr S Arumuga Perumal, Chairman, Kanyakumari Local Centre, IEI welcomed the Chief Guest and others participants. Chief Guest of the event, Dr J Balamurugan, Senior Manager, Tamilnadu Energy Development Agency elaborated on Green Internet of Things (Green IOT) as one of the best solutions for smart world. He informed that smart world has been envisioned as an era in which objects like watches, mobile phones, computers cars, buses and trains can automatically and intelligently serve people in a collaborative manner. Dr Balamurugan told that energy is one of the most important commodities in the modern world for transportation, entertainment, communication, personal comfort, agriculture and manufacturing. He shared his views on energy efficient procedures in hardware and software adopted by IOT either to facilitate reducing the green house effect of existing applications or reduce the impact of green house effect on IOT itself. The program ended with the vote of thanks proposed by Mr S Natarajan, Honorary Secretary, Kanyakumari Local Centre.

North Bengal

North Bengal Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022. Mr Shantanu Das, Past Honorary Secretary, North Bengal Local Centre, IEI, while discussing the topic on 'Build Back Wiser Engineering the Future' talked about environmental challenges, climate change and rebuilding economies after COVID-19. He opined that the current crisis is an opportunity for a profound systematic shift to a more sustainable economy that will work for both people and planet. The members of the Centre also participated in the discussion and shared their thoughts. At the beginning Er Chinmoy Ghosh, Honorary Secretary, North Bengal Local Centre, IEI welcomed the gathering and proposed the vote of thanks at the end.



Rourkela

Rourkela Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 in virtual mode. Mr Nimay Chandra Giri, Assistant Professor, Department of Electronics and Communication Engineering and Centre for Renewable Energy & Environment, Centurion University of Technology and Management, Odisha was the speaker of the event. Mr Giri, while deliberating on the topic 'Build Back Wiser Engineering the Future' highlighted the crucial role of engineering in achieving the Sustainable Development Goals (SDG-17) of environmental and social system. He said that the main objective of the SDG framework is to provide water, food, shelter, sanitization and better livelihood with the help of good engineering education and practices. At the onset, Dr R C Pradhan, Honorary Secretary, Rourkela Local Centre, IEI welcomed the panellist and the participants and proposed the vote of thanks at end.

Saurashtra

Saurashtra Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 in virtual mode. Speaker of the event Dr Ritesh Ramesh Palkar, Associate Professor, Department of Chemical Engineering, Faculty of Technology, Marwadi University, Rajkot delivered lecture on the theme 'Build Back Wiser Engineering the Future'. He advocated for engineers' contribution to address climate change and develop a carbon free economy. Dr Palkar spoke about the contribution of engineers in everyday life like ensuring clean water, sanitation systems, clean cities, affordable healthcare and reliable energy source etc. Earlier Dr Sarang S Pande, Chairman, Saurashtra Local Centre, IEI welcomed the delegates and addressed the gathering.

Trichur

Trichur Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 on the theme 'Build Back Wiser Engineering the Future' in virtual mode. Speaker of the session, Dr R Harikumar, Director, Energy Management Centre, Government of Kerala, Thiruvananthapuram emphasized on Demand Side Management (DSM), which deliver positive results from energy point of view and mentioned about the potential of Brushless Director Current Fans (BLDC). He requested for involvement of engineers for societal benefit. Earlier Prof C P Sunil Kumar, Chairman, Trichur Local Centre, IEI welcomed the participants and spoke on the technological and political challenges faced by engineering fraternity. Dr Kurien E K, Honorary Secretary, Trichur Local Centre, IEI proposed the vote of thanks.



Upper Assam

Upper Assam Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 and a webinar was organised on the occasion. Mr B P Bakshi, Chairman, Upper Assam Productivity Council, Tinsukia graced the occasion as the Chief Guest. Mr Ashit Kr Baruah, Immediate Past Chairman, Upper Assam Local Centre and Former Executive Director (L&D), Oil India Ltd and Mr Diganta Kumar Dutta, Past Chairman & Former Chief General Manager, Assam Gas Company Limited delivered lectures as guest speaker. Mr Rakesh Kalita, Manager (Excavation) NEC, Coal India Ltd presented a technical paper on the topic 'Sustainable Home'. Earlier, Mr S P Deka, Chairman of Upper Assam Local Centre, IEI and Executive Director (ESIC & DOR), Oil India Ltd welcomed the dignitaries and participants of event. The technical session was moderated by Mr Dibakar Bhattacharjee, Former Deputy General Manager, Indian Oil Corporation Limited (Assam Oil Division). Mr Debajeet Sarma, Honorary Secretary, Upper Assam Local Centre, IEI proposed the vote of thanks.

Warangal

Warangal Local Centre, IEI observed World Engineering Day for Sustainable Development on 04 March 2022 on the topic 'Build Back Wiser Engineering the Future'. Dr A Kiran Mayee, Principal, Talla Padmavathi College of Engineering, Warangal was the Chief Guest of this event. Mr Mamidi Sambaiah, Chairman, Warangal Local Centre, IEI welcomed the gathering and introduced the theme. Er G Revathi, Head, Computer Science & Engineering Department; Er J Shilpa, Head, Computer Science & Engineering Department (AI and ML) and Er B Sowjanya, Head, Electronic & Communication Department, Talla Padmavathi College of Engineering, Warangal were present as the panellists and addressed the participants. Er Medi Mallaiiah, Honorary Secretary, Warangal Local Centre, IEI proposed the vote of thanks.



IEI Celebrates World Water Day



Theme - Groundwater: Making the Invisible Visible

The World Water Day was celebrated by the Institution all over the country on March 22, 2022. Reports of celebration received from various Centres are highlighted here.

STATE CENTRES

Gujarat

Gujarat State Centre, IEI, Ahmedabad, celebrated World Water Day jointly with Adani Institute of Infrastructure Engineering, Ahmedabad and Water Management Forum of IEI on 22 March 2022 at Ahmedabad on the theme 'Ground Water: Making the Invisible Visible'. Mr D O Nakrani, Honorary Secretary, Gujarat State Centre delivered the welcome address and elaborated the background of World Water Day. Prof (Dr) Ing. Anupam K Singh, Principal, Adani Institute of Infrastructure Engineering (AIIIE), Ahmedabad detailed on the importance of this day. Guest of Honour Prof M Muruganant, Director, Adani Institution of Education Research, Ahmedabad elaborated on the water crisis all over world and importance of groundwater in maintaining balance of ecosystems, base flow of rivers, preventing land subsidence and seawater intrusion. Keynote Speaker Prof Hareesh M Patel, Professor, Civil Engineering Department, The Maharaja Sayajirao University of Baroda, Vadodara gave detailed presentation on the above theme with different case studies. He touched upon various topics such as hydrological survey, groundwater system characterization, accessing groundwater, demand & supply of water in India by 2050, challenges related to groundwater, studies on aquifers system, history of ground water studies in Gujarat, and effects for source augmentations in groundwater etc. Mr Navinchandra B. Vasoya, Past President, The Institution of Engineers (India), Member, Executive Council, World Federation of Engineering Organizations, Mr M D Patel, Chairman, Water Management Forum, IEI and Chief Engineer & Additional Secretary, Sardar Sarovar Narmada Nigam Ltd, Gandhinagar and Mr Vijay Solanki, Deputy Director, Water Management Forum, IEI were present during the event and addressed the gathering. Mr D O Nakrani, Honorary Secretary, Gujarat State Centre, IEI proposed the vote of thanks. On this occasion, poster presentation competition was also arranged.



LOCAL CENTRES

Aurangabad

Aurangabad Local Centre, IEI observed World Water Day on 23 March 2022 on the topic 'Fuzzy Logic and Genetics Algorithms Application to Water Resources Management'. Dr D G Regulwar, Professor, Government Engineering College, Aurangabad explained the importance of fuzzy logic and genetic algorithm application for the water resource management. He highlighted recent research in uncertainty of water resource modelling systems using fuzzy logic which deal with uncertainty in water resource systems including subjectivity, imprecision and lack of adequate data. Dr Regulwar further discussed applications of fuzzy logic based systems and fuzzy optimization. Dr Uttam B Kalwane, Chairman, Aurangabad Local Centre, IEI spoke on the activities carried out by Aurangabad Local Centre. Prof Ravindra R Deshmukh, Honorary Secretary, Aurangabad Local Centre, IEI proposed the vote of thanks.



Dhanbad

Dhanbad Local Centre, IEI observed World Water Day on 22 March 2022 in association with Indian Institute of Technology (Indian School of Mines) IIT(ISM), Dhanbad on the theme 'Ground Water: Making the Invisible Visible'.



On this occasion, Prof Gurdip Singh, Professor, Department of Environmental Science & Engineering, IIT-ISM, Dhanbad; Dr A K Mishra, Honorary Secretary, Dhanbad Local Centre, IEI & HOD, Mining Engineering

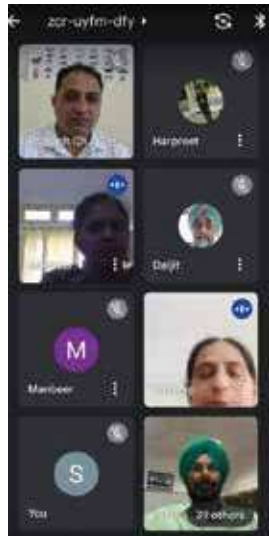
Department, IIT-ISM, Dhanbad; Prof Biswajit Paul, Joint Honorary Secretary and Professor, Department of Environmental Science and Engineering, IIT-ISM, Dhanbad; Dr K K Singh, Past Honorary Secretary, Dhanbad Local Centre, IEI and Professor, IIT-ISM, Dhanbad and Mr B K Samanta, Past Chairman, Dhanbad Local Centre, IEI were present. Prof Biswajit Paul, Joint Honorary Secretary & Professor, Department of Environmental Science and Engineering, IIT-ISM, Dhanbad elaborated on the theme of the day. Prof Gurdip Singh delivered the keynote lecture on 'Ground Water: Making the Invisible Visible'. During the technical session, Mr Pradeep Gour, Manager (Environment), Tata Steel Limited, Jharia Division, Dhanbad and Mr Amaritanshu Srivastava, Deputy Manager (Environment), Bharat Coking Coal Limited delivered lecture on 'Mine Water Utilization' and 'Water & Sanitation for all by 2030' respectively. Dr A K Mishra, Honorary Secretary, Dhanbad Local Centre, IEI proposed the vote of thanks.

Jabalpur

Jabalpur Local Centre, IEI, Jabalpur, celebrated World Water Day in virtual mode on 22 March 2022 on the theme 'Ground Water: Making the Invisible Visible'. Mr V K Jain, former Engineer-in-Chief, Public Health & Engineering Department and Past Chairman, Madhya Pradesh Pollution Control Board delivered the keynote address. Mr Ajay Diwakar, Executive Engineer, Public Health and Engineering Department, Bhopal and Mr Surendra Singh Pawar, Former Executive Engineer, Narmada Ghati Vikas Pradhikaran graced the occasion as Guest Speakers. Earlier, Mr Prakash Chandra Dubey, Chairman, Jabalpur Local Centre, IEI welcomed the august gathering. Mr Komal Chandra Jain, Convener elaborated on the theme of

Punjab & Chandigarh

Punjab & Chandigarh State Centre, IEI observed World Water Day on 22 March 2022 on the theme 'Groundwater: Making the Invisible Visible' in virtual mode.



Mr Sukhvir Singh, Mundi, Chairman, Punjab & Chandigarh State Centre, IEI welcomed the delegates. The Chief Guest Dr Rajan Aggarwal, Principal Scientist and Head of Department of Renewable Energy Engineering, Punjab Agricultural University, Ludhiana discussed about natural solutions to protect groundwater like planting trees and conservation of wetlands etc. Dr Prakash Chand Pathania, Scientist-D (Deputy Director), High Altitude Regional Centre, Zoological Survey of India, Ministry of Environment, Forest and Climate Change, Sapruon, Solan was the keynote speaker who spoke on necessity of conservation of groundwater. He mentioned that groundwater is depleted and contaminated due to anthropological causes, rapid urbanization, use of fertilizers and pesticides in agriculture which is a serious threat to the ecological balance. Dr Pathania emphasized

on exploration and analysis of groundwater. Dr Baljit Singh, Honorary Secretary, Punjab & Chandigarh State Centre, IEI proposed the vote of thanks.

the programme. Mr V K Jain emphasized on making the Jal Jeevan Mission of Government of India meaningful by giving important suggestions to make the country self-reliant in water resource so that the ambition for reaching water to every household can be fulfilled. Mr Ajay Diwakar expressed his concern about the continuous decline in the ground water level and suggested to increase the use of drip irrigation in agriculture. Mr Surendra Singh Power suggested that prevention of water pollution should be a priority so that full benefit of water resources can be taken. The program was conducted by Dr Sanjay Verma, Organising Secretary and concluding remarks were presented by Mr Ashish Chakravorty, Member, Jabalpur Local Centre, IEI. Mr Sanjay Kumar Mehta, Honorary Secretary, Jabalpur Local Centre, IEI, proposed the vote of thanks.

Kadapa

Kadapa Local Centre, IEI, observed World Water Day on 22 March 2022 on the theme 'Ground Water: Making the Invisible Visible'. The speaker of the session, Dr P Kishore Kumar Reddy, Associate Professor, KSRM College of Engineering, Kadapa spoke on Sustainable Development Goal 6 (SDG 6) which includes a target to ensure availability and sustainable management of water for all by 2030. He mentioned that almost all the liquid freshwater in the world is available in the form of groundwater and as climate change gets worse, groundwater will be reduced. He encouraged the use of harmless and biodegradable products and optimum use of water as much as possible. Dr Reddy said groundwater sustains ecosystems, maintains the base flow of rivers and prevents land subsidence and seawater intrusion etc. At the outset, Mr N Bramhananda Reddy, Chairman, Kadapa Local Centre, IEI has inaugurated the function and Mr R Narendra Rao, Honorary Secretary, Kadapa Local Centre, IEI shared his views on the theme of the day.



Kanyakumari

Kanyakumari Local Centre, IEI, celebrated World Water Day on 22 March 2022. Guest of Honour, Er T Padma, Executive Engineer, Ground Water Division, Tirunelveli while delivering her speech expressed her concern with acute water scarcity in future unless water is used judiciously. She pointed out that the need of saving of lakes and tanks from encroachment, linking of rivers, rain water harvesting and awareness campaigns for saving water. Mr V Sivathanu Pillai, Immediate Past Chairman, Kanyakumari Local Centre mentioned the importance of groundwater, its security and proper utilization. Mr S Natarajan, Honorary Secretary, Kanyakumari Local Centre narrated the background of World Water Day and described the water resources in India. He emphasized on proper use and saving of water. He talked about construction of many more dams and interlinking of rivers with the example of 'Tamilbarani-Karumeniyar-Nambiyar Interlinking' which is a successful project near Tirunelveli. Dr M Marsaline Beno, Joint Honorary Secretary and Mr P Gopal, Committee Member, IEI Kanyakumari Local Centre also shared their views during the event.

Meerut

Meerut Local Centre, IEI, celebrated World Water Day on 22 March 2022 on the theme 'Ground Water: Making the Invisible Visible'. Mr S K Kumar, Chairman, Indian Water Resources Society, Meerut Chapter delivered keynote address on the above theme. He said that groundwater sustains life on this planet and its ecosystem, however, it is not visible. Mr Kumar explained population explosion, urbanization and climate variability are mounting pressures on groundwater resources and risk of day zero looms large on the world. He suggested remedial measures like reduction in extraction of groundwater in agriculture to half by 2030 using need based, root zone intensive, timely and measured application of reused/recycled water. Mr Kumar also proposed water guzzling crops like rice and sugarcane should mandatorily be sown in groundwater abundant areas. He opined that mining of groundwater should be stopped by legislation regarding land owners right on groundwater and stressed on the need of realistic water pricing policy to curb wastage of groundwater. Mr S K Kumar came out strongly in favour of review and restrictions on exporting groundwater and food items.

Mr A K Gupta, former Chief Engineer, Irrigation Department, Uttar Pradesh said that unlimited and excessive extraction of water through the unauthorized borings are creating the dark zones throughout the whole country. He advocated for the requirement of strict control on the unauthorized boring, monitoring of rainwater harvesting and groundwater recharging by Government to make the invisible groundwater visible. Earlier, Mr M L Jain, Chairman, Meerut Local Centre welcomed the gathering and Mr R P Agarwal, Honorary Secretary, Meerut Local Centre, IEI proposed the vote of thanks at the end.

North Bengal

North Bengal Local Centre, IEI, celebrated World Water Day on 22 March 2022 on the theme 'Groundwater: Making the Invisible Visible'. Mr Chinmoy Ghosh, Honorary Secretary, North Bengal Local Centre, IEI delivered the welcome address. Mr Sudip Mukherjee, Chairman, North Bengal Local Centre, IEI mentioned that groundwater provides most of the liquid freshwater in the world and rain and snowfall rejuvenate the underground aquifers. He added groundwater feeds springs, rivers, lakes and wetlands, and seeps into oceans. Mr Mukherjee mentioned that groundwater supplies a large proportion of the water what is used for drinking, sanitation, food production and industrial processes and it is critically important to proper functioning of the ecosystems. Mr Chinmoy Ghosh, Honorary Secretary, North Bengal Local Centre, IEI proposed the vote of thanks at the end.



Ranipet

Ranipet Local Centre, IEI, celebrated World Water Day on 22 March 2022 on the topic 'Revival of Rainwater Harvesting Campaign'. Mr V Sundar, General Manager, Bharat Heavy Electricals Limited inaugurated the function and highlighted the theme of this day. Mr K Raju, Additional General Manager, Bharat Heavy Electricals Limited and Dr M Kotteeswaran, Headmaster, Sri Ramakrishna BHEL Higher Secondary School, Bharat Heavy Electricals Limited, Ranipet delivered the keynote addresses embracing the theme. Mr Salaimanalan, Chairman, Ranipet Local Centre, Mr S Vivek, Honorary Secretary, Ranipet Local Centre, Mr T Arumugam and Mr V D Sundaravelu, Committee Members, Ranipet Local Centre, IEI were present during the event. Various field activities based on the theme 'Revival of Rainwater Harvesting Campaign' were carried out like identification of suitable location for groundwater recharge by rainwater harvesting; construction of rain water recharge well and interconnection of rainwater down-comers through piping and leading them into the pit etc.



Tuticorin

Tuticorin Local Centre, IEI observed World Water Day on 22 March 2022 on the theme 'Ground Water: Making the Invisible Visible'. Mr I Maria Michael Raj, Past Chairman, Tuticorin Local Centre, IEI and former Scientific Officer G, Heavy Water Board welcomed the participants. During his speech, he emphasized on creating the awareness on fast depleting water resources in contrast to the rising demand for per capita water requirement for domestic consumption, agriculture and industries. Mr G T Bala Chidhambaram, Senior Scientific Officer, Heavy Water Plant, Tuticorin opined that groundwater is a crucial resource that provides significant amount of potable water across the world for drinking, domestic use, irrigation and industrial



purpose. He said that the groundwater is important for maintaining balance of ecosystems including wetlands, rivers. However, conservation of water has become very difficult and depth of ground water is going down fast due to rapid urbanisation, added Mr Bala Chidhambaram. He shared his views on rainwater harvesting, green farming and drip irrigation, etc to conserve water and to reduce water consumption in homes, farming and industries. The event ended with the vote of thanks proposed by Mr M Talwar, Senior Engineer, Heavy Water Plant, Tuticorin.

Upper Assam

Upper Assam Local Centre, IEI, observed World Water Day on 22 March 2022. The event commenced with the welcome address delivered by Mr S P Deka, Chairman, Upper Assam Local Centre, IEI and Executive Director (ESIC & DOR), Oil India Ltd. Mr B P Bakshi, Chairman, Assam Productivity Council, Tinsukia graced the event as the Chief Guest. Mr Rakesh Kalita, Manager (Excavation), NEC, Coal India Ltd delivered



a technical paper on 'New Technological Initiatives in Water Conservation'. Mr Rajendra Singha, Past Honorary Secretary, Upper Assam Local Centre, IEI proposed the vote of thanks.

Warangal

Warangal Local Centre, IEI observed World Water Day on 22 March 2022 on the theme 'Ground Water: Making the Invisible Visible'. Prof G Damodar, Vice-Chancellor, Chaitanya (Deemed to be University), Kishanpura, Hanamkonda was the Chief Guest of the event and spoke on impact of climate change and water related crisis. Dr G Divya Rani, Head, Civil Engineering Department, Chaitanya (Deemed to be University) welcomed the gathering. Er Mamidi Sambaiah, Chairman, Warangal Local Centre, IEI elaborated on the environmental and climate change which are causing frequent floods, drought and water pollution and affecting vegetation, soil, rivers and lakes. He emphasized on ecological balance which is important for survival of the mankind. Planting new trees, reconnecting rivers to floodplains and restoring wetlands etc. are the natural solutions to improve human health and livelihoods, concluded Er Sambaiah. Er Medi Mallaiah, Honorary Secretary, Warangal Local Centre, IEI proposed the vote of thanks.

Announcement

World Telecommunication and Information Society Day 2022

17th May 2022

Theme: Digital Technologies for Older Persons and Healthy Ageing

World Telecommunication and Information Society Day (WTISD) has been celebrated annually every 17 May since 1969 to mark the founding of ITU and the signing of the first International Telegraph Convention in 1865.

The ageing of the global population will be the defining demographic trend of the 21st century—yet our societies struggle to see the opportunities that this trend can unfold. Telecommunications and information communication technologies (ICTs) have a role to play in achieving healthier ageing, but also in helping people build smarter cities, combat age-based discrimination at the workplace, ensure financial inclusion of older persons, and support millions of caregivers across the world.

WTISD 2022 will allow ITU membership, partners and other stakeholders to raise awareness about the important role of telecommunications/ICTs in supporting people to stay healthy, connected and independent, physically, emotionally and financially – to a life of healthy ageing - and as critical for the sustainability of economic and health systems.

As part of ITU's efforts towards the UN Decade of Healthy Ageing and the theme of WTISD 2022, "Digital technologies for older persons and healthy ageing", ITU invites you to actively participate in commemorating, contributing, and innovating throughout the year with national, regional, and international initiatives to accelerate digital technologies for older persons and healthy ageing.

All Centres of the Institution are requested to celebrate the World Telecommunication and Information Society Day 2022 in a befitting manner.

World Environment Day

5th June 2022

Theme: Only One Earth

World Environment Day is the United Nations' principal vehicle for encouraging worldwide awareness and action for the environment. Held annually since 1974, the Day has also become a vital platform for promoting progress on the environmental dimensions of the Sustainable Development Goals. With the United Nations Environment Programme (UNEP) at the helm, over 150 countries participate each year. Major corporations, non-governmental organizations, communities, governments and celebrities from across the world adopt the World Environment Day brand to champion environmental causes.

World Environment Day takes place every year on 5 June. Over the years, it has grown to be the largest global platform for environmental public outreach and is celebrated by millions of people across the world.

The United Nations General Assembly has declared the years 2021 through 2030 the UN Decade on Ecosystem Restoration. United Nations Environment Programme (UNEP) and the Food and Agriculture Organization (FAO) of

the United Nations together with the support of other partners will lead the event to prevent, halt, and reverse the loss and degradation of ecosystems worldwide. It aims at reviving hundreds of millions of hectares, covering terrestrial as well as aquatic ecosystems. A global call to action, the UN Decade draws together political support, scientific research, and financial muscle to massively scale up restoration.

World Environment Day 2022 will be held under the theme **Only One Earth**, with the focus on "Living Sustainably in Harmony with Nature" highlighting the need to live sustainably in harmony with nature by bringing transformative changes – through policies and our choices – towards cleaner, greener lifestyles. Only One Earth was the motto for the 1972 Stockholm Conference; 50 years on, the motto holds true - this planet is our only home, whose finite resources humanity must safeguard.

All Centres of the Institution are requested to celebrate the World Environment Day 2022 in a befitting manner.

IEI DIARY



Architectural Engineering Division

All India Seminar on "Traditional Architecture and Technology"

Kochi, May 14-15, 2022

The Honorary Secretary, IEI, Kochi Local Centre IEI Bhavan, Government Homeo Hospital Road, Pullepady, PO: Kaloor, Kochi 682017 [☎: 0484-2403838 /2403993, E-mail : kochilc@ieindia.org; Website : www.ieikochi.org

Agricultural Engineering Division

34th National Convention of Agricultural Engineers and National Conference on 'Utilization of Modern Technologies in Agricultural Engineering for Sustainable Agriculture Production'

Hosur, August 29-30, 2022

The Honorary Secretary, IEI, Hosur Local Centre, No.69, Kamaraj Nagar, Kumudepall, Near Adhiyamaan College of Engineering, Hosur, Tamilnadu [Email: hosurc@ieindia.org]

Civil Engineering Division

One Day Workshop on "EPC Contract - A Comprehensive Approach"

Ranchi, May 07, 2022

The Honorary Secretary, IEI, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, PO: Doranda, Ranchi 834002 [☎: 0651-2491344, Mobile: 9431382798, E-mail: jharkhandsc@ieindia.org, Website: ieijscjharkhand.org]

All India Seminar on "Green Building Concepts and its Application in Smart Cities"

Kanchepuram, May 20-21, 2022

The Honorary Secretary, IEI, Kanchepuram Local Centre, Agni College of Technology – ACT, Old Mahabalipuram Road, Thalambur, Chennai 600130 [Email: kanchepuramlc@ieindia.org]

Technical Webinar on "Application of Sustainable Concrete in Modern Constructions"

Kanchepuram, July 6, 2022

The Honorary Secretary, IEI, Kanchepuram Local Centre, Agni College of Technology – ACT, Old Mahabalipuram Road, Thalambur, Chennai 600130 [Email: kanchepuramlc@ieindia.org]

All India Seminar on "IoT in Civil Engineering"

Chennai, July 22-23, 2022

The Honorary Secretary, IEI, Tamilnadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail: tnsc@ieindia.org, Website : www.ieitnsc.org]

Thirty-seventh National Convention of Civil Engineers on "Emerging Technologies & Seismic Concerns"

Indore, October 14-15, 2022

The Honorary Secretary, IEI, Indore Local Centre, SGSITS Campus, 23, Sir M Visvesvaraya Marg (Park Road), Indore 452003, [☎: 0731-2434057, E-mail: indorelc@ieindia.org, Website: www.ieindia.org]

Chemical Engineering Division

Thirty-seventh National Convention of Chemical Engineers on "Battery Energy Storage System", Chennai, September 16-17, 2022

The Honorary Secretary, IEI, Tamilnadu State Centre,

No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail: tnsc@ieindia.org, Website : www.ieitnsc.org]

Computer Engineering Division

All India Seminar on "Information Privacy"

Kanchepuram, June 01-02, 2022

The Honorary Secretary, IEI, Kanchepuram Local Centre, Agni College of Technology – ACT, Old Mahabalipuram Road, Thalambur, Chennai 600130 [Email: kanchepuramlc@ieindia.org]

Electrical Engineering Division

All India Seminar on "Domestic Energy Audit Training"

Tiruvallur, July 15-16, 2022

The Honorary Secretary, IEI, Tiruvallur Local Centre, A 301, Anna Block, Dr MGR Educational and Research Institute, Maduravoyal, Chennai 600095, [☎: 8838566419, E-mail: tiruvallurc@ieindia.org, Web: www.ieitvlc.org]

All India Seminar on "Application of Artificial Intelligence and Machine Learning in Electrical"

Kanchepuram, July 27-28, 2022

The Honorary Secretary, IEI, Kanchepuram Local Centre, Agni College of Technology – ACT, Old Mahabalipuram Road, Thalambur, Chennai 600130 [Email: kanchepuramlc@ieindia.org]

Thirty-seventh National Convention of Electrical Engineers on "Green Energy and Clean Energy for New India"

Jabalpur, November 12-13, 2022

The Honorary Secretary, IEI, Jabalpur Local Centre, Vishvesvaraya Marg, South Civil Lines, In front of Old RTO Office, Jabalpur 482001 [☎: 0761-2678929, E-mail: jabalpurc@ieindia.org]

Electronics and Telecom. Engineering Division

All India Seminar on "Trends in Data Communication & AI"

Jaipur, June 11-12, 2022

The Honorary Secretary, IEI, Rajasthan State Centre, Gandhi Nagar, Tonk Road, Jaipur 302015 [☎: (0141) 2706327, E-mail: rajasthansc@ieindia.org]

All India Seminar on "Recent Trends in Antenna Engineering and Applications in Biomedical Field"

Chennai, July 4-5, 2022

The Honorary Secretary, IEI, Tamilnadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail: tnsc@ieindia.org, Website : www.ieitnsc.org]

Thirty-seventh National Convention of Electronics & Telecommunication Engineers on "The Impact of 5G: Creating New Value across Industries and Society"

Hyderabad, November 18-19, 2022

The Honorary Secretary, IEI, Telangana State Centre, IEI, 6-2-910, "Visvesvaraya Bhavan", Khairatabad, Hyderabad 500004 [☎: 040-23314969/23373087/23370779, E-mail: telanganasc@ieindia.org, Website: www.ieitsc.org.in]

Environmental Engineering Division

Thirty-sixth National Convention of Environmental Engineers on "Technology for Green Fireworks: Holistic approach towards Environmental Challenges"

Madurai, August 26-27, 2022

The Honorary Secretary, IEI, Madurai Local Centre, E r T M Jambulingam Bhavan, No.1, Vivekananda Nagar, 120 Feet Road, Surveyor Colony, K Pudur, Madurai 625007 [☎: 0452-4373067, E-mail: madurailc@ieindia.org]

Mechanical Engineering Division

All India Seminar on "Advancements in Bio Fuels"

Chennai, July 8-9, 2022

The Honorary Secretary, IEI, Tamilnadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail: tnsc@ieindia.org, Website : www.ieitnsc.org]

All India Seminar on "Challenges in the Processing of Titanium alloys for Defense, Aerospace and Marine Applications"

Chennai, July 14-15, 2022

The Honorary Secretary, IEI, Tamilnadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail: tnsc@ieindia.org, Website : www.ieitnsc.org]

Thirty-seventh National Convention of Mechanical Engineers on "Application of IoT and Big Data in Manufacturing and Associated Field"

Delhi, September 10-11, 2022

The Honorary Secretary, IEI, Delhi State Centre, "Engineers Bhawan", 2 Bahadurshah Zafar Marg, New Delhi 110002 [☎: 011-23379052/23379948, E-mail: delhisc@ieindia.org, Web: www.ieidsc.in]

Thirty-eighth National Convention of Mechanical Engineers on "Emerging Trends and Developments in Smart Manufacturing , Renewable Energy and Mechanical Systems Diagnostics/Design"

Nagpur, September 08-09, 2023

The Honorary Secretary, IEI, Nagpur Local Centre, North Ambazari Road, Nagpur 440010, [☎: 0712-2525617, E-mail : nagpurc@ieindia.org]

Metallurgical & Materials Engg. Division

Thirty-fifth National Convention of Metallurgical & Materials Engineers "Low-grade Ore and Waste: Challenges and Remedies"

Durgapur, January 21-22, 2023

The Honorary Secretary, IEI, Durgapur Local Centre, Nehru Avenue, B-Zone, Durgapur 713205 [☎: 0343-2564770, E-mail: durgapurc@ieindia.org; Website: www.ieidurgapurc.org]

Production Engineering Division

Thirty-sixth National Convention of Production Engineers on "Smart Manufacturing"

Chennai, July 1-2, 2022

The Honorary Secretary, IEI, Tamilnadu State Centre, No. 19, Swami Sivananda Salai, Chepauk, Chennai 600005 [☎: 044-25360614 /9962950333, E-mail: tnsc@ieindia.org, Website : www.ieitnsc.org]

Textile Engineering Division

Thirty-fourth National Convention of Textile Engineers on "Innovative Textile Materials" Kanpur, September 17-18, 2022

The Honorary Secretary, IEI, Kanpur Local Centre, Engineers Bhawan, HBTU Campus, Nawabganj, Kanpur 208002 [☎: 0512-2560034, Mobile: 9140018277, E-mail: kanpurc@ieindia.org, Website : www.ieikanpur.org]

News-in-Brief

The following are the brief account of Technical Activities organised by various Centres

STATE CENTRES

Delhi

Organized National Science Day 2022 on the theme 'Integrated Approach in S&T for Sustainable Future' on 28 February 2022. Mr Rajesh Sharma, Honorary Secretary, Delhi State Centre, IEI illustrated the discoveries of Sir C V Raman for his noble contribution in science and technology for observing 28 February as the Discovery of the Raman Effect. He described Raman effects in detail. Mr Sharma further spoke on the Internet of Things (IoT) that has changed the technical lifestyle. He shared his views on challenges and issues from various aspects of IoT as applications, social and environmental impacts, etc.

Gujarat

Organized an event and exhibition for Startups on the theme 'Social Impact through Technology or Innovation' during 01-02 December 2021 jointly with Ahmedabad Chamber of Commerce Welfare Foundation and Connect Startup Dots Team; Computer Society of India - Ahmedabad Chapter; Water Management Forum of IEI, Gujarat Traders Federation and L D College of Engineering. Mr Navinchandra B Vasoya, Past President, IEI, and Member, Executive Council, World Federation of Engineering Organizations, Dr Manish Doshi, Member of Computer Society of India, Shri H U Kalyani, Past Chairman, Gujarat State Centre, IEI and Mr Mahendrasinh Sodha, Vice President, Corporate Affairs, Welspun Group, Dr Rajuiben K Gajjar, Principal, L D College of Engineering, Ahmedabad and Mr R D Barhatt, General Manager, District Industries Centre were present on the occasion. Chief Guest Dr Navin Sheth, Vice Chancellor, Gujarat Technological University appreciated the efforts of all organizers for arranging a wonderful event and inaugurated the mega exhibition for Startups. One stall was set up by Water Management Forum, IEI on the theme 'Save Water and Water Conservation' in the said exhibition. Panel discussions were held during this event on different subjects such as Government Schemes for Startups, Socio Economic Impact of Startups, Decoding Startups, Local to Global and Fuelling Startups etc.

Organized a seminar on 'Water Resources Planning & Management using RS, GIS, DEM, Modelling (HEC-RAS) Engineering' jointly with Shri Swaminarayan Institute of Technology (SSIT), Bhat, Gandhinagar and Water Management Forum, IEI on 31 December 2021. Prof Dipika Shah, Head, Civil Engineering Department, SSIT, Bhat, Gandhinagar briefly spoke on the objective and the background of the Seminar. Mr M D Patel, Chairman, Water Management Forum of IEI, Chief Engineer and Additional Secretary, Sardar Sarovar Narmada Nigam Ltd., Gandhinagar highlighted on objective and various activities performed by Water Management Forum of IEI. The Chief Guest, Mr Navinchandra B Vasoya, Past President, IEI, and Member, Executive Council, World Federation of Engineering Organizations; Guest of Honour Mr H U Kalyani, Chief Engineer (North Gujarat) and Additional Secretary, Water Resources Department, Government of Gujarat and Immediate Past Chairman, Gujarat State Centre, IEI and Prof (Dr) Hitesh H Vandra, Principal, SSIT, Bhat, Gandhinagar addressed the gathering. Keynote Speaker Dr Dhruvesh Patel, Associate Professor, Pandit Dindayal Energy University, Gandhinagar explained different case studies including flood in Tapi river in 2006 and flood in Banaskantha District in 2017, etc. He also shared his views on Dem and Modelling (HEC-RAS) Engineering which were earlier used in Arc-GIS and exported for model execution to HEC-RAS.

LOCAL CENTRES

Kanpur

Organized a lecture meeting on "Reforms Oriented and Results Linked Revamped Distribution Sector Scheme" on 31 October 2021. Speaker of the session Dr K K

Singh Tomar, Sub-Divisional Officer, Gumti, Kanpur Electricity Supply Company Limited, Kanpur said 24x7 availability of reliable and affordable power is the key to economic development of the country. He further elaborated that the distribution companies (DISCOMs) need to focus on operational efficiencies, financial sustainability and consumer satisfaction to meet the desired consumer service standards, which requires large scale reforms in distribution sector and schemes to enable DISCOMs to reduce losses. Dr Tomar added that Ministry of Power, Government of India has introduced various schemes for DISCOMs with an aim for a time bound revamp of the sector.

Organized Late Prof C B Gupta Memorial Expert Lecture on 'Functionalisation of Textiles' on 09 February 2022 in virtual mode jointly with Uttar Pradesh Textile Technology Institute, Kanpur. Prof C B Gupta was Chairman of Kanpur Local Centre, IEI and member of State Executive Council, Uttar Pradesh for 18 years. He was president of the Textile Association of India, Uttar Pradesh State Chapter. On this occasion, Prof. Ashok R Athalye, Department of Fibre and Textile, Institute of Chemical Technology, Mutunga, Mumbai was the guest speaker. He discussed the importance of supercritical carbon dioxide-based textile coloration to minimize water application for sustainable development. Prof Athalye focused on the potential of plasma technology and nanotechnology in textile functionalisation. He further deliberated on different types of textiles such as fragrance textiles, camouflage textiles, medical textiles and their applications. The sustainable wet processing is the future need of textile industry since the world is going to face severe crises of drinking water in the coming years, concluded Prof Athalye.

Organized lecture meeting on 12 February 2022 in virtual mode jointly with All India Valuers Association, Kanpur. On this occasion Mr O P Verma, Director, Futurevalue Advisors India Pvt. Ltd., New Delhi and Mr R C Pandey, Director, Gharaunda Consultant, Gorakhpur was the guest speakers. Mr O P Verma talked on the topic 'Valuation of Plant and Machinery – Some Odd Situations'. Speaker, Mr R C Pandey delivered a lecture on 'Various Factors Affecting the Market Value of the Property', where, he described the method of valuation, types of valuation, etc. Earlier, Mr Vivek Asthana, Chairman, Kanpur Local Centre, IEI welcomed the guests speakers and other participants of the programme. At the end, Mr Rama Kant Yadav, Honorary Secretary of the Centre proposed the vote of thanks.

Organized a webinar on the topic 'Cyber Crime' on 25 February 2022. Mr Ketan Anand, Lecturer, Signa Institute of Professional Studies, Kanpur was the, guest speaker, who threw light on the nature and variety of cyber crime where computer is either a tool or a target or both. He touched upon ATM/Credit Card Fraud, high level of technical tackling, hacking, salami attack and denial of service etc which are illegal intrusion in the system. Mr Anand said in the era of globalisation, use of digital platform is inevitable, which increases the scope of cyber crime and this can only be avoided by spreading the awareness about it amongst people.

Kadapa

Organized a webinar on the occasion of World Standards Day on 14 October 2021. On this occasion, Dr Kasigari Prasad, Associate Professor, Department of Electronics & Communication Engineering, Annamacharya Institute of Technology & Science, Rajampet delivered a lecture on the topic 'Our Shared Vision for a Better World' on virtual platform.

Kochi

Organised a technical webinar on the topic 'Mini Cloud Burst - An Harbinger of Global Warming Response in Kerala' on 30 November 2021. On this occasion, Dr Abhilash, Associate Director and Assistant Professor, Atmospheric Science Department, Cochin University of Science and Technology (CUSAT) spoke on the topic and explained the reason of unusual climate change in Kerala leading to the new phenomenon of cloud burst which are visible in the high altitude areas normally. He stressed on temperature rise of sea water due to global warming as the reason for accumulation of clouds in Kerala.

Organised a technical webinar on the topic 'Engineering feasts: Marvel of Ratio' on 13 January 2022. Mr Kumar P R, an eminent practicing engineer, accredited valuer and civil engineering consultant focussed on the golden ratio in design application and explained dimensional proportionality concept especially in civil engineering and architectural design.

Organised a lecture meeting on the topic 'Kerala Silver Line Project – Myth and Reality' on 20 January 2022. On the occasion, Dr M P Sukumaran Nair, former Council Member, IET explained the need and the actual status of the project. He clarified in detail the environmental impact, limitations and the economic implication of the said project.

Organised a lecture meeting on the topic 'K Rail Project – through the Eyes of a Spatial Planner' on 3 February 2022 in virtual mode. Dr(Ms) May Mathew, Founder Trustee and Chief Planner, Centre for Environmental Efficacy, Kochi was the speaker of the session. During her deliberation, she narrated various aspects of town planning with special emphasis on the urbanisation of Kochi city and Kerala state. Dr Mathew pointed out the limitations of Railway Project which adversely affected the urbanization of Kochi city.

Kolhapur

Organized Energy Conservation Day on the topic 'Non-conventional Energy Resources in Indian Perspective' on 14 December 2021. On this occasion Dr A D Patil, Assistant Professor, Mechanical Engineering Department, Dr S K Patil, Assistant Professor, Civil Engineering Department, and Dr V V Waghmare, Assistant Professor, Civil Engineering Department, DKTE'S Textile & Engineering Institute, Ichalkaranji deliberated on the topic at length and touched upon various relevant issues related to non-conventional energy in Indian perspective.

Madurai

Organized a lecture meeting on 'Accelerating Urban Action for a Carbon Free World' on 04 October 2021 on the occasion of World Habitat Day. Prof (Dr) K Muthuchelian, former Vice Chancellor, Periyar University, Salem was the key speaker on this occasion, who explained the theme of the said Statutory Day with detailed discussion on various habitats in the world. He illustrated the effects of carbon emissions and the measures to reduce carbon emission. Prof Muthuchelian advocated for rapid forestation to counter the effects of carbon emission and cited the example of bamboo tree as one of best solution for urban forestation. He added that developed countries are planting the bamboo trees in urban areas as bamboo reduces 75% of carbon emission.

Pune

Organised a technical webinar on the topic 'Engineers Intelligence: Past Present & Future Pole Valuating towards Exponential Future' on 29 November 2021. On the occasion, the Chief Guest Er Paresh Navgire, Factory Manager, Alfa Laval India Private Limited, Pune discussed on the topic at length and pointed out the key responsibilities of a successful engineer which include solving societal problems and thinking about customer satisfaction. Prof Dr Rahul More, Dean, Faculty of Skill & Work Integrated Education deliberated on engineering innovations, time required for the innovation to reach the consumers and explained the exponential growth of innovation in non-linear manner with many practical examples.

Rourkela

Organized webinar on the topic 'Changing Climate and its Impact on Earth's Weather with a Special Focus on Cyclonic Disturbances' on 17 November 2021. Speaker of the session, Prof Jagabandhu Panda, Associate Professor and Head, Department of Earth and Atmospheric Sciences, National Institute of Technology, Rourkela shared his views on the impact of changing climate on weather, heat wave condition, rainfall and wind movement etc. in local, regional and global scale along with graphical representation. He further clarified the reasons of changing frequency and intensity of cyclones and rainfall in the country with relevant examples.

South Gujarat

Organized 'Applicator Training Programme' on 24 December 2021 in association with UltraTech Cement Pvt Ltd. Er Krunal Phavan, UltraTech Cement Pvt Ltd delivered lecture on relevant topics like dampness, fundamental principles of better waterproofing, measures to protect structural strength and basic/practical knowledge with necessary tools.

Organized an One Day Workshop on 'Concrete Mix Design' on 27 February 2021 jointly with UltraTech Cement Pvt Ltd. Mr Rohit Pandya, Sales Executive, Mr Vishal Agarwal, Coordinator, Technical Department and Mr Jalpesh Sangani, Technical Department, Ultratech Cement Pvt Ltd emphasized on the concrete

mixed designs which aids foundation to achieve robust infrastructure. They put thrust on the testing of the each ingredient of the mix in harsh conditions of atmosphere with respect to their physical properties and bearing capacity at the project location before finalizing the concrete mix.

Tirunelveli

Organized seminar on the topic 'Latest Trends in Software Testing' on 18 November 2021 at Tirunelveli. Mr Dinesh Kumar, Process Lead, Mobius Knowledge Services, Chennai was the speaker of the programme. He explained how to minimize the work sensibly with the help of various tools and how to prepare the assessment report. He also briefed on latest software testing tools like Selenium, Ranorex, Sahi Watir, Tosca tests, etc.

Organized a discussion meeting on the topic 'The Tamilnadu Combined Development and Building Rules-2019' on 01 December 2021 at Tirunelveli. On the occasion, Mr K Esakkiyappan, Chairman, State DTCP Committee, Tirunelveli was the Chief Guest and keynote speaker. During his lecture, he provided precise information about various rules and regulations to obtain building plan approval in various locations like Corporation, Municipality and Panchayat.

Organized technical webinar on the theme 'Java Programming – Made Easy' on 24 February 2022. Speaker of the event, Dr G Aravind Swaminathan, Professor and Head, Computer Science and Engineering Department, Francis Xavier Engineering College, Tirunelveli briefed about Java programming and interacted with the students. He had also shown practical applications of JAVA programming.

Tuticorin

Organized a lecture meeting on the topic 'Grid Management Challenges' held on 23 November 2021. Speaker of the session, Mr K Selva Ganesan, AEE., Tuticorin Thermal Power Station (TTPS) elaborated on the importance of infrastructure requirements for time synchronization, reliability, latency, criticality of data delivery. He also touched upon the major issues in networking communications in smart grid like interoperability and technical challenges like lack of policies, storage concern, cyber security vulnerabilities, inadequacy in grid infrastructure to meet the demand etc. Mr Selva Ganesan further added that the amount of electricity in the grid corresponds to actual consumption needs. He concluded by saying that several power grid operators have to face various technical, financial, societal issues and lack of consumer awareness.

Organized a lecture meeting on the topic 'Fuel Saving Techniques in Vehicles' on 29 November 2021. Mr M Talwar, Senior Engineer, Heavy Water Board, Tuticorin delivered a lecture on fuel saving techniques in vehicles. He said that a vehicle consumes fuel even when the engine is on but in idle mode and therefore it is better to turn the engine off at the traffic signals or traffic jams. Mr I Maria Michael Raj, FIE, Past Chairman, Tuticorin Local Centre, IET presided over the function and welcomed the participants. He shared his thoughts about the fuel saving techniques including 5 fuel-efficient driving techniques to lower the fuel consumption and carbon dioxide emissions by 25%. Mr Talwar elaborated on the measures to save fuel properly like keeping the wheels properly aligned, cleaning the air filter, using high quality energy conserving oils and driving at 55 miles per hour as far as practicable without accelerating much on the highway.

Organized a lecture meeting on 18 December 2021 on the topic 'Boiler Performance Improvement'. Mr I Maria Michael Raj, Past Chairman, Tuticorin Local Centre briefed on the need for improvement of boiler performance. He said boiler is considered to be the heart of the thermal power plant for saving of generation cost and the majority of the heat lost in the boiler is in the stack or boiler water. The goal is to generate smallest possible amount of flue gas at lowest temperature, added Er Michael Raj. The speaker of the session, Mr T Gana Puban (former), AEE., Tuticorin Thermal Power Station talked about several strategies for improvement in boiler performance. He said that original cost of the boiler is a small part of the total cost associated with the boiler over its operational life and the major cost of boiler operation is the fuel cost. Mr Gana Puban emphasized on regular performance test to check day to day and season to season changes in boiler operation and power efficiency, which are dependent on stack temperature, insulation of valves, cleaning of fireside and water side and preheating combustion air etc. He also stressed on optimised fuel usage for effective and economic operation of the boiler.



The Institution of Engineers (India)

Revised Fee Structure

(Effect from 01 April 2022)

[As per Decision of 713th Meeting of Council, Hyderabad, March 25-27, 2022]

FRESH APPLICATION

Grade	India & Nepal (₹) including GST
Fellow (FIE)	20060
Member (MIE)	8260
Associate Member (AMIE)	5900
For SMIE within 1 year of passing	5782
For SMIE within 1 year of passing from IM	5605

FOR TRANSFER CASES

Grade	India & Nepal (₹) including GST
AMIE to MIE	3540
AMIE to FIE	15340
MIE to FIE	13452
AMTIE to MTIE	1416

OTHER MEMBERSHIP RELATED FEE

Items	India & Nepal (₹) including GST
Chartered Engineer Certificate	29500
Chartered Engineer Certificate after upgradation / transfer of membership	5900



The Institution of Engineers (India)

IEI YOUNG ENGINEERS AWARD 2022-2023

Notification

The Institution of Engineers (India) is a multi-disciplinary professional body of engineers with 15 engineering disciplines and over 9,00,000 members in India and abroad. The Institution was established in 1920 and was incorporated by Royal Charter in 1935. It has been in the forefront of engineering profession addressing the socio engineering problems for progress of the country. IEI functions among professional engineers, academicians, research workers to update their professional knowledge through continuous professional development. With its large international linkages and a network of 125 Centres in India and Six Overseas Chapters, the Institution has built up wide reach and large infrastructure to meet its objectives of promoting engineering in all aspects.

With a view to promote the pursuit of excellence in the field of engineering, IEI has instituted 'IEI Young Engineers Award'. The Award consists of a Plaque and a Certificate. The purpose of the Award is to recognize outstanding achievements/contributions made by young engineers in engineering research, excellence in engineering technology development, technology transfer, etc. Any engineer citizen of India not older than 35 years of age as on March 31, 2022 is eligible for the Award. The IEI Young Engineers Award is presented to awardees for all the 15 Engineering Divisions of the IEI during the respective National Conventions. The awardees attending the National Convention will be provided with free accommodation & their traveling expenses (AC-3 Tier train fare by shortest route) will be reimbursed on production of original documents.

The Application Proforma may be downloaded from the link <https://www.ieindia.org/webui/IEI-Activities.aspx#young-engineering-awards>. Soft copy of the filled-in application proforma should be forwarded to award@ieindia.org by **May 31, 2022**. Further, six copies of the duly filled application form, along with all supporting documents, endorsed by appropriate authority should be sent to the below mentioned address so as to reach us latest by **June 10, 2022**:

Director (Technical)

The Institution of Engineers (India)
8 Gokhale Road, Kolkata 700020

The envelope containing the application should be superscribed on the top as 'IEI Young Engineers Award 2022-2023' and name of the engineering division under which the applicant desires to be considered for the Award.

Project Management Associates Weekend Programme



International Project Management Association

IPMA is a federation of about 72 Member Associations (MAs) who develop project management competences in their geographic areas of influence. Through IPMA, project management practitioners from all parts of the world can network, share ideas through effective collaboration and cooperation.

Who / Why to Attend

Professionals across all levels who want to understand the intricacies of Project Management and want to excel in managing projects to advance their career.

Discounted Program Registration Fee for IEI Members (15% discount from the published fee)

Participation Fee for Level C: Rs. 47,090 per person plus GST @ 18%

Participation Fee for Level D: Rs. 24,650/- per person plus GST @ 18%

- Registration fee is non refundable. However, alternate persons can be nominated.
- Cheque / draft or NEFT is payable to “**Project Management Associates**” at Delhi.
- The registration fee does not include travel and hotel accommodation.

Next batch of on-line learning sessions on Project Management Competence Building (PMCB) based on ICB Version 4, knowledge base for IPMA Level C and Level D by our Learning partner PMA is from **May 6th and 7th, 13th & 14th 2022**. The relevant material is available in the link <https://www.pma-india.org/brochures>.

Dates: 6, 7, 13, 14 May 2022 (0930 – 1730 hrs)

Exam Venue: Secure and Seamless Online Exam & Assessment

For more details, please contact:

Arvind Agarwal, Head, PMA Cert (Certification Body)

Project Management Associates

FC-33, Plot No. 1 & 2, Periyar Centre, 3rd Floor, Institutional Area, Jasola, New Delhi – 110025

Tel: 011 41421511 Mob: +91 9711631534-35/39, 9840432229 Website: www.pma-india.org

Email: info@pma-india.org /

Superannuation from IEI



Mr Saibal Kumar Ghosh, an employee of the Institution HQ will be superannuating from the services of IEI on April 30, 2022. He joined the Institution on May 01, 1983 and rendered his services to the Institution for a period of 39 years.

IEI wishes Mr Saibal Kumar Ghosh and his family a happy and healthy life in the future.

I.E.I NEWS

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